

## CLAIMS

- 1) A method of operating an information retrieval system for retrieving information from a database in response to queries submitted by a user, said method comprising the 5 steps of:
  - receiving a first user query;
  - deriving a first lexical chain set from said first user query using a predetermined lexical chaining algorithm, said first lexical chain set comprising one or more lexical chains representing possible interpretations of said first user query;
- 10 storing one or more lexical chains from said first lexical chain set in a lexical chain storage means;
  - identifying a first subset of documents from said database using said first lexical chain set and a predetermined information retrieval algorithm;
  - making information relating to said first subset of documents available to the 15 user;
  - receiving a subsequent user query, said subsequent user query being related to said first user query;
    - deriving a subsequent lexical chain set from said subsequent user query using a predetermined lexical chaining algorithm in conjunction with one or more lexical chains 20 stored in said lexical chain storage means;
    - identifying a subsequent subset of documents from said database using said subsequent lexical chain set and a predetermined information retrieval algorithm;
    - making information relating to said subsequent subset of documents available to the user.
- 25 2) A method according to claim 1, further comprising additional steps, following the identification of a subset of documents from said database, of:
  - deriving a lexical chain set from said subset of documents; and
  - updating said lexical chain storage means in view of said lexical chain set derived 30 from said subset of documents.
- 3) A method according to claim 1, further comprising the additional steps, following one or more steps of making information relating to a subset of documents available to the user, of:

receiving an indication from a user as to which documents from said subset of documents are considered to be relevant;

deriving a lexical chain set from those documents which are considered to be relevant; and

5 updating said lexical chain storage means in view of said lexical chain set derived from said documents which are considered to be relevant.

4) A method according to any of the preceding claims, further comprising the step of receiving an indication from a user as to whether a subsequent user query is considered 10 to be related to a previous user query or not.

5) A method according to claim 4, wherein said steps of receiving a subsequent user query, deriving a subsequent lexical chain set, identifying a subsequent subset of documents and making information relating to said subsequent subset of documents 15 available to the user are repeated in the event that an indication is received from a user that a subsequent user query is considered to be related to a previous user query.

6) A method according to claim 4, wherein said steps of receiving a subsequent user query, deriving a subsequent lexical chain set, identifying a subsequent subset of 20 documents and making information relating to said subsequent subset of documents available to the user are repeated in the event that no indication is received from a user that a further user query is considered not to be related to a previous user query.

7) A method according to any of the preceding claims, wherein the database 25 comprises meta-data relating to said information.

8) A method according to any of the preceding claims, wherein the information in the database is indexed using lexical chains.

30 9) A method according to claim 8, wherein the predetermined information retrieval algorithm is arranged to identify documents with reference to said indexed information.

10) An information retrieval system for retrieving information from a database in response to queries submitted by a user, said system comprising:

35 means for receiving a first user query;

means arranged to derive a first lexical chain set from a first user query using a predetermined lexical chaining algorithm, said first lexical chain set comprising one or more lexical chains representing possible interpretations of said first user query;

means arranged to store one or more lexical chains from said first lexical chain

5 set in a lexical chain storage means;

means arranged to identify a first subset of documents from said database using said first lexical chain set and a predetermined information retrieval algorithm;

means for making information relating to said first subset of documents available to the user;

10 means for receiving a subsequent user query, said subsequent user query being related to said first user query;

means arranged to derive a subsequent lexical chain set from said subsequent user query using a predetermined lexical chaining algorithm in conjunction with one or more lexical chains stored in said lexical chain storage means;

15 means arranged to identify a subsequent subset of documents from said database using said subsequent lexical chain set and a predetermined information retrieval algorithm;

means for making information relating to said subsequent subset of documents available to the user.

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11) An information retrieval system according to claim 10, further comprising:

means for deriving a lexical chain set from an identified subset of documents; and

means for updating said lexical chain storage means in view of said lexical chain set derived from said subset of documents.

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12) An information retrieval system according to claim 10, further comprising:

means for receiving an indication from a user as to which documents from an identified subset of documents are considered to be relevant;

means for deriving a lexical chain set from those documents which are

30 considered to be relevant; and

means for updating said lexical chain storage means in view of said lexical chain set derived from said documents which are considered to be relevant.

13) An information retrieval system according to any of claims 10 to 12, further comprising means for receiving an indication from a user as to whether a subsequent user query is considered to be related to a previous user query or not.

5 14) An information retrieval system according to any of claims 10 to 13, wherein the database comprises meta-data relating to said information.

15) An information retrieval system according to any of claims 10 to 14, wherein the information in the database is indexed using lexical chains.

10 16) An information retrieval system according to claim 15, wherein the predetermined information retrieval algorithm is arranged to identify documents with reference to said indexed information.